

Title (en)
Apparatus for suppressing stimulated Brillouin Scattering

Title (de)
Vorrichtung zur Unterdrückung von stimulierter Brillouin Streuung

Title (fr)
Appareil pour supprimer la diffusion Brillouin stimulée

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Application
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Abstract (en)
An apparatus and method are disclosed for suppressing stimulated Brillouin scattering (SBS) of the output light from a laser such as a distributed Bragg reflector (DBR) semiconductor laser using a tuner which responds to a dither signal to continuously tuning the semiconductor laser to reduce stimulated Brillouin scattering therefrom. The tuner responds to a continuously applied sinusoidal current as the dither signal to tune the semiconductor laser by controlling the lasing wavelength thereof. The tuner includes an input region for receiving the dither signal. In a first embodiment, the tuner includes a resistor thermally connected to a passive waveguide of the semiconductor laser, with the resistor responding to the dither signal for continuously heating the passive waveguide to control the tuning of the semiconductor laser. In a second embodiment, the tuner responds to the dither signal to continuously bias the passive waveguide of the semiconductor laser to control the tuning of the semiconductor laser. The tuner continuously injects a biasing current into the passive waveguide of the semiconductor laser to continuously bias the passive waveguide.

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Citation (search report)
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